



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/712,267	11/14/2003	Jeffrey D. Martin	032161R066	8051
441	7590	09/02/2004	EXAMINER	
SMITH, GAMBRELL & RUSSELL, LLP 1850 M STREET, N.W., SUITE 800 WASHINGTON, DC 20036			MAYO, TARA L	
			ART UNIT	PAPER NUMBER

3671

DATE MAILED: 09/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/712,267

Applicant(s)

MARTIN, JEFFREY D.

Examiner

Tara L. Mayo

Art Unit

3671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20040428, 20040713.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Information Disclosure Statement

1. The citations lined through on the Information Disclosure Statement filed 28 April 2004 are duplicates.

Specification

2. The abstract of the disclosure is objected to because of a minor grammatical error. On line 6, delete "This" and insert therefor --There--. Correction is required. See MPEP § 608.01(b).
3. The disclosure is objected to because of the following informalities: an undefined abbreviation. On page 13, change "CFD" to --Compressive Force Deflection (CFD)-- or make an equivalent change thereto. Appropriate correction is required.

Claim Objections

4. Claims 13, 28 and 34 are objected to because of the following informalities: undefined abbreviations and a minor grammatical error.

In claim 13 on line 2, define the abbreviation "pcf."

In claim 28 on lines 2 and 3, define the abbreviations "CFD" and "pcf." Furthermore, indicate the percentage of compression for the recited CFD values.

In claim 34 on line 3, delete the colon and insert therefor a semicolon.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 38 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claim 38, the claim is unclear as written. For the purposes of prosecution on the merits, the claim has been interpreted as, --The pillow of claim 30 wherein said projections are cross-sectional projections and there is further provided a longitudinal ridge of extension positioned for neck contact.--.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1 through 4, 7 through 12, 18 through 21 and 34 through 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Schaefer et al. (U.S. Patent No. 4,726,087).

Schaefer et al. '087, as seen in Figures 1 and 2, show a unitary (col. 6, lines 28 through 31) foam pillow (10) comprising:

with regard to claim 1,

a foam main body (12; col. 4, line 68);

a plurality of foam projections (22) extending off said foam main body, said projections being in first (20) and second groups (16) which define different support characteristic zones (col. 7, lines 16 through 27);

with regard to claim 2,

wherein said projections are of a foam material;

with regard to claim 3,

wherein the device includes a first row of cylindrical foam projections (16) and a second row of cylindrical foam projections (20) and a top surface of the cylindrical projections in the first row have a larger radius than top surfaces of the cylindrical projections in said second row;

with regard to claim 4,

wherein said pillow is formed as a monolithic foam body ((col. 6, lines 28 through 31);

with regard to claim 7,

wherein the first and second groups of projections include multiple rows of a first size projection and a second size projection;

with regard to claim 8,

wherein said first and second groups include cylindrical foam projections;

with regard to claim 9,

Art Unit: 3671

wherein said first group of multiple rows of projections include a pair of laterally spread apart longitudinally extending rows of projections in a central region of the surface of said foam main body, and wherein said second group of multiple rows of projections include a pair of longitudinally extending rows of projections that are positioned to opposite lateral sides of the pair of the longitudinally extending rows of the projections of said first group in the central region;

with regard to claim 10,

wherein the projections of said first group are smaller in volume than the projections of said second group;

with regard to claim 11,

wherein the projections within said first group are of a common size and configuration within said first group, and wherein the projections within said second group are of a common size and configuration within said second group;

with regard to claim 12,

wherein the projections in each of said first and second groups are cylindrical;

with regard to claim 18,

wherein said surface of said main body has a convex curvature;

with regard to claim 19,

wherein said convex curvature extends in a lateral direction;

with regard to claim 20,

wherein the projections of said first group include cylindrical projections, and the projections of said second group include cylindrical projections that are laterally external to

Art Unit: 3671

said first group of projections and are of a larger radius than a cylindrical projection in said first group;

with regard to claim 21,

wherein the projections of said first and second groups have an average cross-sectional width value that is greater than a distance of extension of said projections transversely off a supporting surface of said main body;

with regard to claim 34,

a main body (12) having a longitudinal length and a lateral width and a convex upper surface (col. 5, lines 3 through 10);

and a plurality of projections (22) extending upwardly of said convex surface and arranged in different support characteristic grouping (col. 7, lines 16 through 27);

with regard to claim 35,

wherein said projections include a first group (20) that is greater in number and smaller in projection volume relative to a second group (16) that is less in number but greater in projection volume;

with regard to claim 36,

wherein said projections in said first and second groups have essentially a common height and maximum width of the projections in said second group is greater than that of said first group (col. 6, lines 14 through 23); and

with regard to claim 37,

wherein said projections are cylindrical projections with the first group having a smaller radius than that of said second group.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schaefer et al. (U.S. Patent No. 4,726,087).

Schaefer et al. '087 teach all of the features of the claimed invention with the exception(s) of:

with regard to claim 22,

the distances of extension of the first and second groups being within 15% of each other.

With regard to claim 22, it would have been obvious to one having ordinary skill in the art at the time the invention was made to determine ranges of extension for both the first and second groups, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

11. Claims 5, 6, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schaefer et al. (U.S. Patent No. 4,726,087) in view of Veilleux et al. (U.S. Patent No. 6,327,725 B1).

Schaefer et al. '087 further teach:

with regard to claim 14,

said projections of the first and second groups being of a common general shape.

Schaefer et al. '087 disclose all of the features of the claimed invention with the exception(s) of:

with regard to claims 5, 6 and 13,

the pillow being formed of a visco-elastic foam; and

with regard to claim 13,

the foam material having a density range of 2.0 to 3.0 pcf.

Veilleux et al. '725, as seen in Figures 1 and 2, show a contour pillow (10) having a main body (11) comprised entirely of visco-elastic foam (col. 2, lines 45 through 47) and expressly teaches the desirability of visco-elastic for its ability to evenly distribute loads (col. 1, lines 29 through 33).

With regard to claims 5, 6 and 13, it would have been within the ordinary level of skill for one in the art of pillows at the time the invention was made to modify the device shown by

Art Unit: 3671

Schaefer et al. '087 such it would be made entirely of visco-elastic foam as taught to be advantageous by Veilleux et al. '725. The motivation would have been to improve the support characteristics of the pillow.

With regard to claim 13, it would have been obvious to one having ordinary skill in the art at the time the invention was made to determine an optimal density range for the visco-elastic material, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

12. Claims 15 through 17, 23 through 33 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schaefer et al. (U.S. Patent No. 4,726,087) in view of Davidson, Jr. (U.S. Patent No. 5,160,785A).

Schaefer et al. '087, as seen in Figures 1 and 2, show a pillow (10) comprising:
with regard to claim 23,

a main body (12 and 14, in combination);

projections (22) arranged in a plurality of rows extending off said main body, and said projections including a first type of projection (20) having a first support characteristic and a second type of projection (16) having a second support characteristic, with said first and second projection types being arranged on said main body to define first and second different support characteristic zones;

with regard to claim 24,

wherein said first type of projection includes laterally spaced apart longitudinally extending row of projections and said second type of projection includes laterally spaced apart longitudinally extending rows of projections;

with regard to claim 26,

wherein said first and second projection types are arranged laterally;

with regard to claim 27,

whereas said pillow has a symmetric relationship with respect to projection types (30) about a centrally located longitudinal cross-section line;

with regard to claim 28,

wherein said first projection type is more centrally positioned than said second projection type;

with regard to claim 30,

wherein said first projection type includes cylindrical projections and said second projection type includes cylindrical projections less centrally positioned than the projection of the first projection type, and wherein the projection of said first group are smaller in radius and greater in number per longitudinal row than the cylindrical projections of said second projection type;

with regard to claim 31,

a main body (12) of foam (col. 4, line 68);

a first row of foam projections of a first projection type (16); and

Art Unit: 3671

a central zone of foam projections of a second projection type (20), said first row of foam projection of said first projection type being positioned laterally of said central zone of foam projections;

with regard to claim 32,

further comprising a second row of foam projections of the first projection type (18) which is positioned to an opposite lateral side of said central zone as said first row of foam projections of said first projection type; and

with regard to claim 38,

wherein the projections are cross-sectional projections.

Schaefer et al. '087 disclose all of the features of the claimed invention with the exception(s) of:

with regard to claims 15 and 23,

a third projection type defining a third different support characteristic zone;

with regard to claims 16 and 24,

the third projection type including a longitudinally extending ridge extension;

with regard to claims 16 and 25,

a second longitudinally extending ridge extension;

with regard to claim 28,

the first and second projection types having CFD values of 0.35 to 0.55 lbs. and 0.60 to 0.80 lbs., respectively, with a density range of foam forming the first and second projection types of 2.0 to 3.0 pcf;

Art Unit: 3671

with regard to claims 17 and 29,

the third projection type including a ridge extension extending along a forward or front longitudinal edge of the main body;

with regard to claim 31,

a first foam ridge extension extending along a front edge region of the main body and positioned on the opposite lateral side of the first row of foam projections as the central zone of foam projections;

with regard to claim 33,

a second foam ridge extension positioned laterally rearward of the second row of foam projections of the first projection type; and

with regard to claim 38,

there being further provided a longitudinal ridge of extension positioned for neck contact.

Davidson, Jr. '785, as seen in Figures 1 through 3A, shows a padding body (20) comprising a plurality of foam projections (28), and first and second foam ridge extensions (elements 70, 71 and 72, collectively, on each end of the body) bordering the plurality of projections to make the body useful as a pillow (col. 4, lines 4 through 8).

With regard to claims 15 through 17, 23 through 25, 29, 31, 33 and 38, it would have been obvious to one having ordinary skill in the art of pillows at the time the invention was made to modify the device shown by Schaefer et al. '087 such that it would include first and

Art Unit: 3671

second foam ridge extensions on the edges as taught to be desirable by Davidson, Jr. '785.

The motivation would have been to finish the edges of the body thereby making it useful as a pillow.

With regard to claims 16 and 26, Schaefer et al. '087 as modified by Davidson, Jr. '785 show a pillow wherein the first, second and third projection types are arranged laterally in a sequence of said first ridge extension (70, 71 and 72), a first longitudinal row of said second type projection (16), a pair of longitudinal rows of said first type projection (20), a second longitudinal row of said second type projection (18) and a second ridge extension (70, 71 and 72).

With regard to claim 28, it would have been obvious to one having ordinary skill in the art at the time the invention was made to determine optimal CFD and density ranges for both the first and second projection types, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

With further regard to claims 16, 17 and 29, while Davidson, Jr. '785 teaches placing first and second ridge extensions on the end edges of a main body, it would have been within the ordinary level of skill for one in the art to place ridge extensions on the longitudinal edges of the main body shown by Schaefer et al. '087.

Conclusion

Art Unit: 3671

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tara L. Mayo whose telephone number is 703-305-3019. The examiner can normally be reached on Monday through Friday 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will can be reached on 703-308-3870. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


TLM

26 August 2004



Thomas B. Will
Supervisory Patent Examiner
Group 3600